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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/581,562

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EXAMINER

HEINCER, LIAM J

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/581,562	Applicant(s) RIEGEL ET AL.	
	Examiner Liam J. Heincer	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 17-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/2007</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 17-33 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Considering Claims 17-33: Instant claim 17 is directed towards a "hydrogel-forming polymer" comprising up to 10% by weight of a second polymer. It is unclear whether the invention is directed towards a copolymer or to a composition comprising two separate polymers. Based on Examples 1 and 2 the claim is being interpreted as being directed towards a polymer composition comprising a hydrogel forming polymer and a dendritic polymer.

Considering Claims 26-30: Claim 26 recites the limitation "a...polymer of claim 1" in lines 1-2. There is insufficient antecedent basis for this limitation in the claim. For the purpose of further examination, the claim is being interpreted as reading "polymer of claim 17" to provide the proper dependency and antecedent basis.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 17, 18, and 20 and 31-33 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Winterton et al. (US 2003/0134132).

Considering Claims 17, 18, and 20: Winterton et al. teaches a hydrogel (§0138) that has been coated with a polyaminoamide dendrimer (§0136).

Winterton et al. is silent as to the amount by weight of the dendrimer in the final product. However, as the dendrimer is used as a coating, it would implicitly be present in a low weight percent of less than 10 weight percent.

Considering Claims 31 and 32: Winterton et al. teaches contacting the article made from the composition with blood or bodily fluids.

Considering Claim 33: Winterton et al. teaches an article comprising the composition (§0023). The term "hygiene article" is being interpreted as a statement of intended use. As the article of the composition is capable as functioning as a hygiene article, the limitation is met.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Note: Claims 17, 18, 20, and 33 is being rejected below as an alternative to the rejection presented above in order to address limitations in the dependent claims.

Claims 17-19, 21, 22, 24, 25, 26, 27, and 29 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Staples et al. (US Pat. 5,994,440) in view of Hult (Hyperbranched Polymers).

Considering Claim 17-19:: Staples et al. teaches a composition comprising a water-swallowable hydrogel (2:1-2) and a hydrophilic dedusting agent that is a polymeric polyol (7:13-42). Staples et al. teaches the dedusting agent as being used in amounts of 1 and 0.25 weight percent (Table One).

Staples et al. does not teach the polyol as being a dendritic polymer. However, Hult teaches a dendritic polyol produced from 2,2-bis(methylol) propionic acid and a polyol (Section 2.2). Staples et al. and Hult are analogous art as they are concerned

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with the same field of endeavor, namely polymeric polyols. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the dendritic polyol of Hult in the composition of Staples et al., and the motivation to do so would have been, as Hult suggests, the polymers are commercially available and have a high hydroxyl group density (Section 2.2).

Considering Claims 21 and 22: Staples et al. teaches adding a particulate/dusty pyrogenic/fumed silica (8:9-19).

Considering Claims 24 and 25: Staples et al. teaches less than 2.5 ppm unassociated dust with a diameter less than 10 μm (7:3-11) and less than 14.8 ppm after mechanical stress (Table Three).

Considering Claims 26 and 27: Staples et al. teaches mixing a dried hydrogel with the dedusting agent (2:28-45).

Considering claim 29: Staples et al. teaches crosslinking the hydrogel (5:1-25).

Considering Claim 33: Staples et al. teaches an absorbent material comprising the composition (1:54-56). The term "hygiene article" is being interpreted as a statement of intended use. As the article of the composition is capable as functioning as a hygiene article, the limitation is met.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Staples et al. (US Pat. 5,994,440) in view of Hult (Hyperbranched Polymers) as applied to claim 21 above, and further in view of Short et al. (US Pat. 5,578,119).

Considering Claim 23: Staples et al. and Hult collectively teach the composition of claim 21 as shown above.

Staples et al. does not teach adding microspheres with the claimed dimensions to the hydrogel. However, Short et al. teaches using hollow microspheres with dimensions between 50 and 600 microns in diameter (4:18-339), and with a wall thickness of ~3% (Example 1). Staples et al. and Short et al. are analogous art as they are concerned with the same field of endeavor, namely hydrogel compositions. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the hollow microspheres of Short et al. in the composition of Staples et al.,

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and the motivation to do so would have been, as Short suggests, to produce an article using a cost effective hollow filler (2:58-3:2).

Claims 26 and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Winterton et al. (US 2003/0134132) as applied to claim 17 above, and further in view of Staples et al. (US Pat. 5,994,440).

Considering Claims 26 and 28: Winterton et al. teaches mixing a hydrogel (¶0138) with a polyaminoamide dendrimer (¶0136).

Winterton et al. does not teach drying the hydrogel prior to mixing. However, Staples et al. teaches drying a hydrogel prior to coating it with a polymer (2:28-45). Winterton et al. and Staples et al. are analogous art as they are concerned with the same field of endeavor, namely coated hydrogels. It would have been obvious to a person having ordinary skill in the art at the time of invention to have dried the hydrogel of Winterton et al. as in ref1, and the motivation to do so would have been, as Staples et al. suggests, to increase the absorbtivity of the hydrogel (6:10-37).

Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Staples et al. (US Pat. 5,994,440) in view of Hult (Hyperbranched Polymers) as applied to claim 29 above, and further in view of Park et al. (US 2001/0038831).

Considering Claim 30: Staples et al. and Hult collectively teach the method of claim 29 as shown above.

Staples et al. does not teach the crosslinking as occurring in a mixture of isopropanol and water. However, Park et al. teaches surface crosslinking a hydrogel in a mixture of isopropanol and water (¶0012). Staples et al. and Park et al. are analogous art as they are concerned with the same field of endeavor, namely surface crosslinked hydrogels. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the solvent mixture of Park et al. in the crosslinking step of Staples et al., and the motivation to do so would have been, as Park et al. suggests, isopropanol will aid in dissolving the crosslinking agent (¶0067).

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 17, 19-26, 29 and 30 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9, and 18-20 of copending Application No. 10/589,727. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of Application '727 teaches a swellable hydrogen-forming polymer comprising at least one hydrophilic polymer of dendritic structure.

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Claims 1-9 of Application '727 does not teach the hydrophilic dendritic polymer being used in an amount of up 10% by weight. However, differences in concentration generally will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical. See MPEP § 2144.05. It would have been obvious to a person having ordinary skill in the art at the time of invention to have optimized the amount of dendritic polymer through routine optimization and the motivation to do so would have been to reduce the amount of fines in the polymer.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark Eashoo, Ph.D./

LJH

Supervisory Patent Examiner, Art Unit 1796

October 8, 2008